Appl. No. 10/799,488

Amdt. dated February 14, 2008

Reply to Office Action of November 27, 2007

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for optimizing frequency of a clock signal provided

for operations of a network switch, said network switch comprising a clock signal generator for

generating said clock signal, and a plurality of input/output ports for communicating therevia

with at least one network node, said method comprising steps of:

asserting a control signal to said clock signal generator according to a certain condition a

count of said input/output ports in use; and

adjusting the frequency of said clock signal outputted from said clock signal generator in

response to said control signal.

2. (Cancelled)

3. (Currently Amended) The method according to claim [[2]] 1 wherein the step for

adjusting the frequency of said clock signal comprises:

generating a first clock signal with a first frequency in response to a first control signal

corresponding to a first count of said input/output ports in use;

generating a second clock signal with a second frequency higher than said first frequency

in response to a second control signal corresponding to a second count of said input/output ports

in use greater than said first count; and

generating a third clock signal with a third frequency lower than said first frequency in response to a third control signal corresponding to a third count of said input/output ports in use

less than said first count.

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4. (Currently Amended) The method according to claim [[2]] $\underline{1}$ further comprising a step

of subtracting a count of said input/output ports without connecting to any network node from a total count of said input/output ports included in said network switch to obtain said count of said

input/output ports in use.

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) A method for adjusting a frequency of a clock signal provided

for operations of a network switch, said network switch comprising a clock signal generator for generating said clock signal, and a plurality of input/output ports for communicating with a

plurality of network nodes, said method comprising steps of:

detecting connection states of said input/output ports by counting said input/output ports

currently connecting to said with said plurality of network nodes;

adjusting the frequency of said clock signal according to said connection states of said

input/output ports with said plurality of network nodes; and

repeating said detecting and adjusting steps at intervals of a predetermined period.

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) A network switch for conducting data transmission among

network nodes, comprising:

a first number of input/output ports for connecting to a variable number of network

nodes, said variable number being equal to or less than said first number;

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a connection-state detector in communication with said first number of input/output ports,

detecting connection states of said input/output ports with by counting said variable number of

network nodes, and asserting a control signal according to said connection states of said

input/output ports; and

a clock signal generator generating a clock signal having a frequency determined

according to said control signal.

12. (Cancelled)

13. (Cancelled)

14. (Original) The network switch according to claim 11 wherein said clock signal

generator is a phase-locked loop clock signal generator.

15. (Original) The network switch according to claim 11 wherein said clock signal

generator and said connection state detector are integrated in a control chip.

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